



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0453; Project Identifier MCAI-2021-00377-R; Amendment 39-21754; AD 2021-20-16]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2021-04-15, which applied to all Airbus Helicopters Model AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters; and certain Model AS350B3 helicopters. AD 2021-04-15 required repetitive visual inspections of the right-hand side of the vertical fin spar for discrepancies (cracking), and corrective action if necessary. This AD retains the requirements of AD 2021-04-15, and requires repetitive cleaning and repetitive detailed inspections for cracking of the vertical fin spar and vertical fin upper attachments, and corrective action if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. This AD also expands the applicability to include additional Model AS350B3 helicopters. This AD was prompted by a report that, during an unscheduled post-flight inspection of the tail cone area, a crack was found in the spar of the upper part of the vertical fin and fractures were found in the two front attachment screws. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For material incorporated by reference (IBR) in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0453.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0453; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Kathleen Arrigotti, Program Manager, Large Aircraft Section, International Validation Branch, Compliance & Airworthiness Division, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218; email kathleen.arrigotti@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0099, dated April 9, 2021 (EASA AD 2021-0099) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Airbus Helicopters Model AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters; and all Model AS350B3 helicopters except those that have that embodied Airbus Helicopters Modification 073148 in production. EASA stated that recent analysis identified that AS350B3 helicopters modified through Eurocopter AS350 Service Bulletin 55.00.14 (any revision) in service might also be affected by the identified unsafe condition.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-04-15, Amendment 39-21437 (86 FR 13165, March 8, 2021) (AD 2021-04-15). AD 2021-04-15 applied to all Airbus Helicopters Model AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters; and certain Model AS350B3 helicopters. The NPRM published in the *Federal Register* on June 8, 2021 (86 FR 30395). Since the FAA issued AD 2021-04-15, the FAA has determined that additional actions are required to address the unsafe condition. The NPRM proposed to retain the requirements of AD 2021-04-15, and require repetitive cleaning and repetitive detailed inspections for cracking of the vertical fin spar and vertical fin upper attachments, and corrective action if necessary, as specified in an EASA AD. The NPRM also proposed to expand the applicability to include additional Airbus Helicopters Model AS350B3 helicopters.

The FAA is issuing this AD to address cracking in the spar of the upper part of the vertical fin and fractures in the front attachment screws. This condition could lead to

in-flight separation of the upper part of the vertical fin, resulting in loss of control of the helicopter. See the MCAI for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received one comment from a commenter. The following presents the comment received on the NPRM and the FAA's response.

Request to Allow Pilots to Do Visual Inspection

The commenter requested that pilots be allowed to perform the proposed repetitive visual inspections of the right-hand side of the vertical fin spar for cracking at intervals not to exceed 10 hours time-in-service. The commenter suggested that only if a crack is suspected that a mechanic be notified. The commenter stated that it is a burden on operators to get a mechanic to a helicopter every 10 hours time-in-service to do the inspection. The commenter also remarked that certain current FAA ADs allow pilots to perform visual inspections because those inspections do not require specialized tools, training, or any disassembly and that the service information referred to in EASA AD 2021-0099 mentions that a pilot can perform the visual inspection.

The FAA does not agree with the commenter's request. Although there are instances where the FAA does allow a pilot to do a visual check, for this AD, the FAA is not allowing this due to the criticality of the crack location, the lack of definition of what pilot training is sufficient to do this visual inspection, and because the area being inspected is likely to need cleaning prior to each inspection. The FAA has revised paragraph (h) of this AD to clarify that a pilot cannot do the visual check and that it must be performed by a qualified mechanic.

Conclusion

The FAA reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this AD as proposed.

Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0099 specifies procedures for repetitive visual inspections of the right-hand side of the vertical fin spar for cracking; repetitive cleaning and repetitive detailed inspections for cracking of the vertical fin spar and vertical fin upper attachments; and corrective action. The corrective action includes repair.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 650 helicopters of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained actions from AD 2021-04-15	7 work-hours X \$85 per hour = \$595, per inspection/cleaning cycle	\$0	\$595, per inspection/cleaning cycle	\$386,750, per inspection/cleaning cycle
New actions	4 work-hours X \$85 per hour = \$340, per inspection/cleaning cycle	\$0	\$340, per inspection/cleaning cycle	\$221,000, per inspection/cleaning cycle

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
4 work-hours X \$85 per hour = \$340	\$17,052	\$17,392

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2021-04-15, Amendment 39-21437 (86 FR 13165, March 8, 2021); and

b. Adding the following new AD:

2021-20-16 Airbus Helicopters: Amendment 39-21754; Docket No. FAA-2021-0453; Project Identifier MCAI-2021-00377-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-04-15, Amendment 39-21437 (86 FR 13165, March 8, 2021) (AD 2021-04-15).

(c) Applicability

This AD applies to Airbus Helicopters specified in paragraph (c)(1) and (2) of this AD, certificated in any category.

(1) Model AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters, all serial numbers.

(2) Model AS350B3 helicopters, all serial numbers except those that have embodied Airbus Helicopters Modification 073148 in production.

(d) Subject

Joint Aircraft System Component (JASC) Code 5531, Vertical Stabilizer, Spar/Rib.

(e) Unsafe Condition

This AD was prompted by a report that, during an unscheduled post-flight inspection of the tail cone area of an Airbus Helicopters Model AS355NP helicopter, a crack was found in the spar of the upper fin and fractures were found in the two front attachment screws. The FAA is issuing this AD to address cracking in the spar of the upper part of the vertical fin and fractures in the front attachment screws. This condition could lead to in-flight separation of the upper part of the vertical fin, resulting in loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0099, dated April 9, 2021 (EASA AD 2021-0099).

(h) Exceptions to EASA AD 2021-0099

(1) Where EASA AD 2021-0099 refers to its effective date or to July 12, 2017, (the effective date of EASA AD 2017-0114, dated June 28, 2017), this AD requires using the effective date of this AD.

(2) This AD does not mandate compliance with the “Remarks” section of EASA AD 2021-0099.

(3) Where EASA AD 2021-0099 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(4) Where paragraph (4) of EASA AD 2021-0099 specifies to contact the manufacturer for approved repair instructions, for this AD, if any cracking is detected during any inspection, repair before further flight using a method approved by the Manager, International Validation Branch, FAA. For a repair method to be approved by the Manager, International Validation Branch, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

(5) Where the service information referred to in EASA AD 2021-0099 specifies to perform a visual inspection for cracking on the "RH side of spar (a)" and "if you are not sure" remove the rear and the tail rotor gear box (TGB) fairings to perform a detailed inspection and do a dye-penetrant inspection, those actions are required by this AD if any crack indication (e.g., paint chips, dents, or swelling) is found during any inspection done without removing the rear and the TGB fairings.

(6) Where the service information referred to in EASA AD 2021-0099 specifies to perform a visual check for cracks in the "spars (a) of the top and bottom fins" and "if you are not sure" do a dye-penetrant inspection, the dye-penetrant inspection is required by this AD if any crack indication (e.g., paint chips, dents, or swelling) is found during any visual check (inspection).

(7) Where the service information referred to in EASA AD 2021-0099 specifies to check the integrity of the two thrust pad attachment screws for damage, for this AD, damage includes loosening, deformation, and nicks.

(8) Where the service information referred to in EASA AD 2021-0099 specifies that the visual check can be performed by an airframe technician or pilot, this AD requires that the visual check be performed by a qualified mechanic.

(i) Special Flight Permit

Special flight permits, as described in 14 CFR 21.197 and 21.199, are prohibited.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

For more information about this AD, contact Kathleen Arrigotti, Program Manager, Large Aircraft Section, International Validation Branch, Compliance & Airworthiness Division, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax (206) 231-3218; email kathleen.arrigotti@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0099, dated April 9, 2021.

(ii) [Reserved]

(3) For EASA AD 2021-0099, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0453.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on September 23, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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